

MSD**MICRO SYSTEMS DEVELOPMENT, INC.**

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INSTRUCTIONS FOR USING THE V16K/V24K RAM EXPANSION
CARTRIDGE

These instructions describe the use of the memory expansion cartridge for the VIC 20[®] computer. The cartridge comes ready to plug into the computer through the expansion port on the rear of the VIC 20[®] or an expansion module.

V16K MEMORY EXPANSION CARTRIDGE

The V16K Memory Expansion cartridge provides 16,384 bytes of additional user memory to the VIC 20[®] computer. The cartridge can be used by itself or in conjunction with other memory expansion cartridges to add up to a total of 28K of expansion memory.

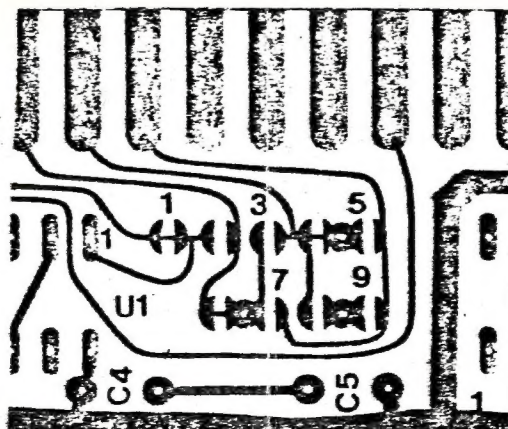
The V16K cartridge comes configured for the first available 16K block of memory (address \$2000 - \$5FFF). This starting address can be changed if used ⁱⁿ conjunction with 8K of expansion memory. In order to change the starting address of the memory expansion cartridge:

- 1) Remove the screws from the bottom of the memory cartridge.
- 2) Remove the printed circuit board and locate jumpers 1 - 9 on the component side of the board. (see fig. 1)
- 3) Remove all jumpers and install jumpers 2 and 3 to allow user memory between addresses \$4000 and \$7FFF.

Note: The board comes with jumpers 1 and 6 etched into the board. These jumpers need to be cut before changing the starting address range.

- 4) Reinstall the printed circuit board into the cartridge and reassemble the cartridge.

Figure 1.



(continued on back)

V24K MEMORY EXPANSION CARTRIDGE

The V24K Memory Expansion cartridge provides 24,576 bytes of additional user memory to the VIC 20[®] computer. The cartridge can be used by itself or in conjunction with a 3K expansion module to provide the maximum of 31K user memory. However the 3K located from \$0400 through \$0FFF can only be accessed by machine language programs. ¹⁸²⁴ 4095

OPERATING INSTRUCTIONS:

- 1) Turn off the system power.
- 2) Insert the memory cartridge into the expansion connector with the label up.
- 3) Turn on the system power.
- 4) The sign on message should indicate that additional memory is available with one of the following messages depending on the amount of user memory added:

For 16K expansion: '19967 BYTES FREE'

For 24K expansion: '28159 BYTES FREE'

IC's

M58725P = 5.5 - MK 4802.

74LS139P